DS-K430S Service Manual

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Parts List

1.1 Laser Caution

CAUTION

Adjusting the knobs, switches, and controls, etc. or taking actions not specified herein may result in a harmful emission of laser beams. This CD Changer must be adjusted and repaired only by qualified service personnel.

Laser symbol:

CAUTION- INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED AVOID EXPOSURE TO BEAM.
VORSICHTI-UNSICHTBARE LASERSTRAHLUNG TRITT AUS.WENN DECKEL GEOFFNET UND WENN SICHERHEITSVERRIEGELUNG uBERBRuCKT IST. NICHT DEM STRAHL AUSSETZENI
VARNING- OSYNLIG LASERSTRALNING NAR DENNA DEL AR OPPNAD OCH SPARR AR URKOPPLAD STRALEN AR FARLIG.
ADVARSEL- USYNLIG LASERSTRALING VED ABNING NAR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION.UNDGA UDSAETTELSE FOR STRALING.

THIS IS COMPACT DISC PLAYER IS CLASSIFIED AS A CLASS 1 LASER PRODUCT.

THE LASS 1 LASER PRODUCT LABEL IS LOCATED ON THE REAR EXTERIOR.

1.2 Precautions

1.2.1. ESD Precautions in Repairing

1.2.1.1. Do not apply excessive pressure on the mechanical parts (moving pares), including the Pickup Block, as extremely high mechanical precision or required in these parts.

1.2.1.2. When soldering the microprocessor and signal processing IC's, use a ceramic soldering iron or a soldering iron whose metal part is grounded since they are not resistant to static electricity.

1.2.1.3. When removing the solder or soldering the laser shorting lands for the Pickup Block, use a ceramic soldering iron or a soldering iron whose metal part is grounded since the laser diode or not resistant to static electricity.

1.2.2. DVD Loading Unit Precautions when handling the Mechanism Block

1.2.2.1. Do not loosen any screws in the Pickup Block.

1.2.2.2. Do not adjust any screws in the Mechanism Block except for "Tilt Adjust Screws", as they are adjusted precisely at the factory.

1.2.2.3. Replacement of the Pickup Block is impossible. Always replace the Traverse Ass'y when the Pickup Block needed to be replaced. Do not touch the lens or lens holder of the Pickup Block.

1.2.2.4. The Guide Rails of the Pickup Block are greased. Take care when handing.

1.2.2.5. When you try to slide the Pickup Block, do not press or pull it directly. Always turn the dive gears with your fingers. 1.3.2.6. Be sure that the anti-slipping rubber on the turntable or clean. If there is dust or it is greasy, clean the part with the liquid that contains 50% each of alcohol and water.

1.2.2.7.When removing the Mechanism P.C.B. Ass'y, you need to short-circuit the laser diode shorting lands beforehand.

1.2.3 Software Upgrade

MTK disc Upgrade Notice

1. The upgrading software must be recorded (burned) on a CD-R or CD-RW disc, and
   a) Volume ID of the disc must be "MEDIATEK", in capital letters. All Recording (burning) software supports volume edit.
   b) The upgrading software must be renamed as "MTK.BIN", also in capital letters. You can rename it on PC before recording.
   c) The upgrading software MTK.BIN must be in root directory. Recording mode must be ISO9660 (MODE1, LEVEL1), DO NOT SELECT JOLIET, LOOSEN ISOSTRICT.
2. Load the disc
3. DVD will read disc, and prompt upgrading. Press "PLAY" on remote to confirm upgrading.

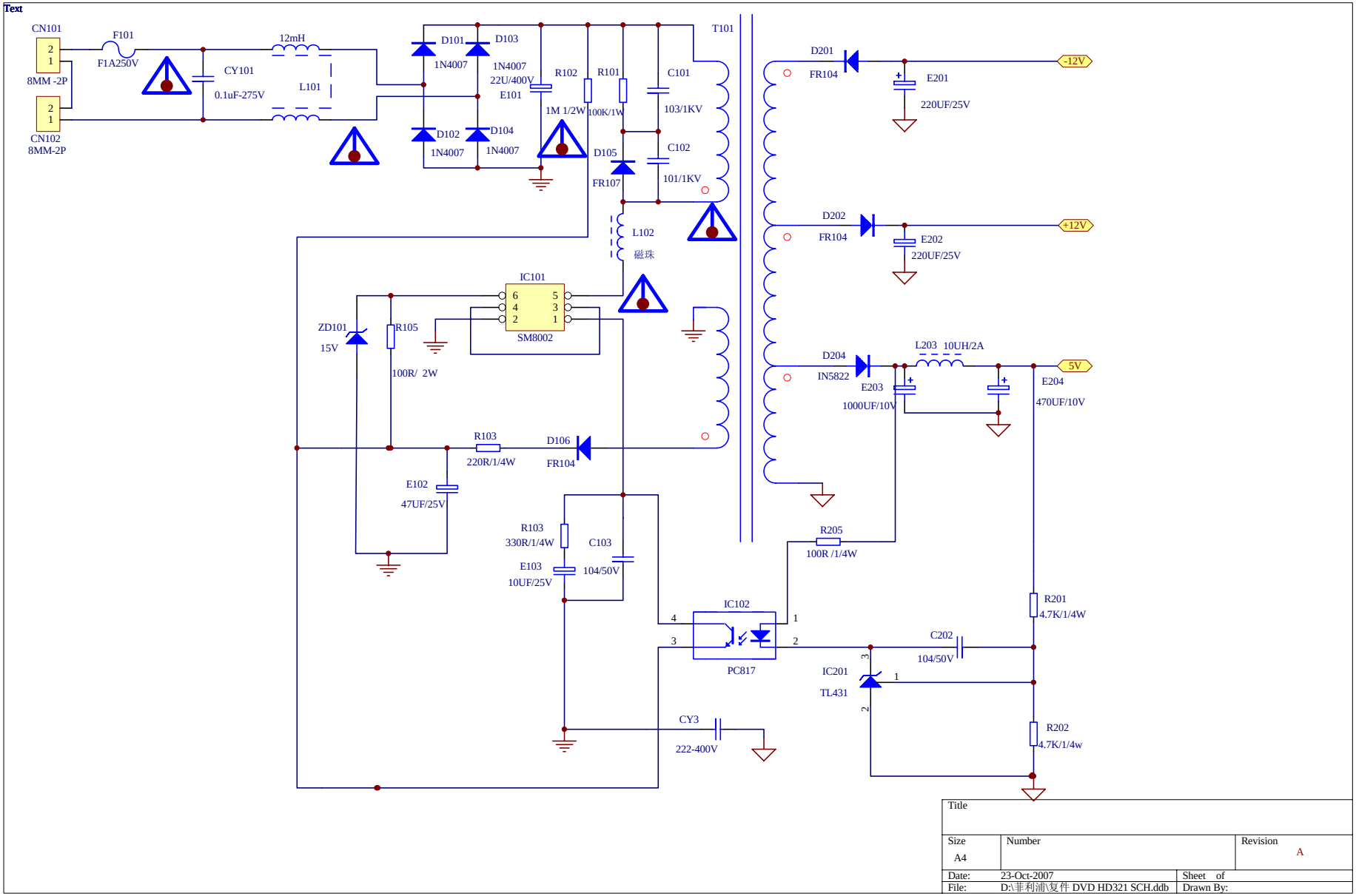
Note: Do not turn off the player while under upgrading; do not let electricity cut off. Otherwise the player will halt and never be operate again.

If the DVD player cannot read the disc, please record some data file (trash files that the player cannot support) before recording upgrading software.

Displaying the Software Version Number

1. First press the"⏏"(open/close) with the remote control..
2. Second press the"Display" with the remote control.
3. Third press"▲ ","▼","◀","▶",then respective software version number is displayed.

2. Power supply Circuit Diagram and Component Layout



COMMON1389L/K_HD65_V4.0_Ext Desktop Model

MT1389L/K (LQFP128) DVD TEST Board w/ Sanyo HD6x Series PUHs

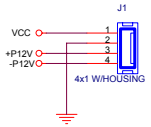
CHIPS_89L/K_HD65_V2

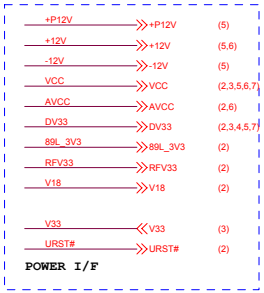
1 INDEX & POWER, RESET
2 MT1389L/K LQFP128
3 MOTOR DRV
4 SDRAM & FLASH
5 AUDIO I/F
6 VIDEO I/F

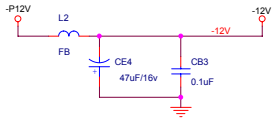
MT1389L/K Full Function:
(USB,1CH MIC,6CH DAC,VGA,SCART,GAME,CARD,VFD)

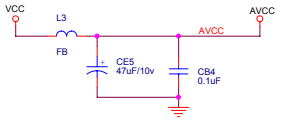
MT1389L/K General GPIO List

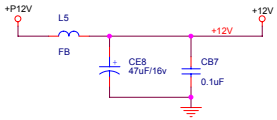
Name	PIN	Features	
GPIO3	33	GAME_SW	
GPIO4	34	LIMIT	TROUT
GPIO6	35	TRCLOSE	
GPIO7	87	MS_CLK	
GPO_A	22	STBY	
GPO_B	23	TROPEN	IOA
GPIO2	26	TRIN	
GPIO8	88	MS_BS	SD_CLK
GPIO9	89	MS_D0	SD_CMD
GPIO10	91	SD_D0	
GPIO11	92	SCART1	HSYNC
GPIO12	93	ASPDIF	
GPIO13	94	VSTB	
GPIO19	106	SCART2	VSYNC
GPIO20	107	ADVCM	
GPIO21	108	AKIN1	AUDIO_MUTE
GPIOK0	27	USB_DP	
GPIOK1	28	USB_DM	
GPIOK2	31	PAD_VRT	
UP1_6	40	VSCK	
UP1_7	41	VSDA	
ARF	114	AUDIO_ARF	GAME_LOAD
ARS	115	AUDIO_ARS	GAME_CLK
ALS	119	AUDIO_ALS	GAME_DA1
ALF	120	AUDIO_ALF	GAME_DA2

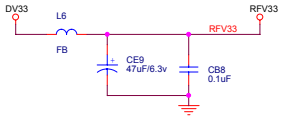


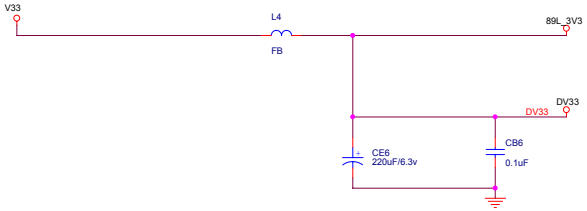






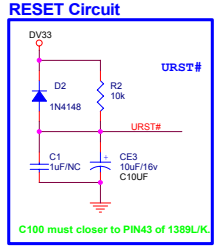






OPTION FOR 5888

RESET Circuit



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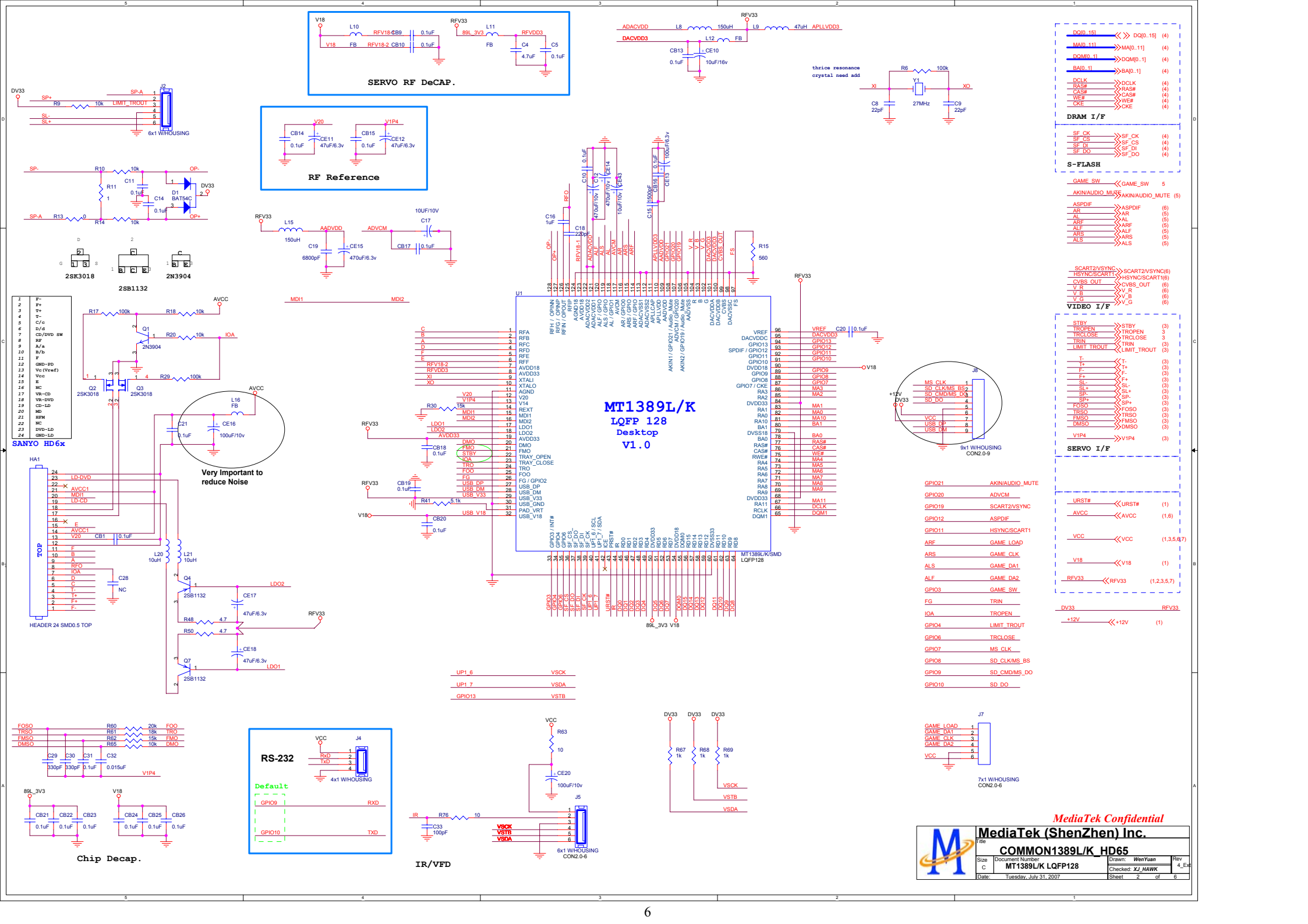
Drawn: WenYuan | Checked: XJ_HAWK

Date: Monday, July 23, 2007 | Sheet 1 of 6


SERVO RF DeCAP.
RF Reference
MT1389L/K
LQFP 128
Desktop
V1.0
SANYO HD6x
Very Important to reduce Noise
RS-232
Default
Chip Decap.
IR/VFD
DRAM I/F
S-FLASH
VIDEO I/F
SERVO I/F
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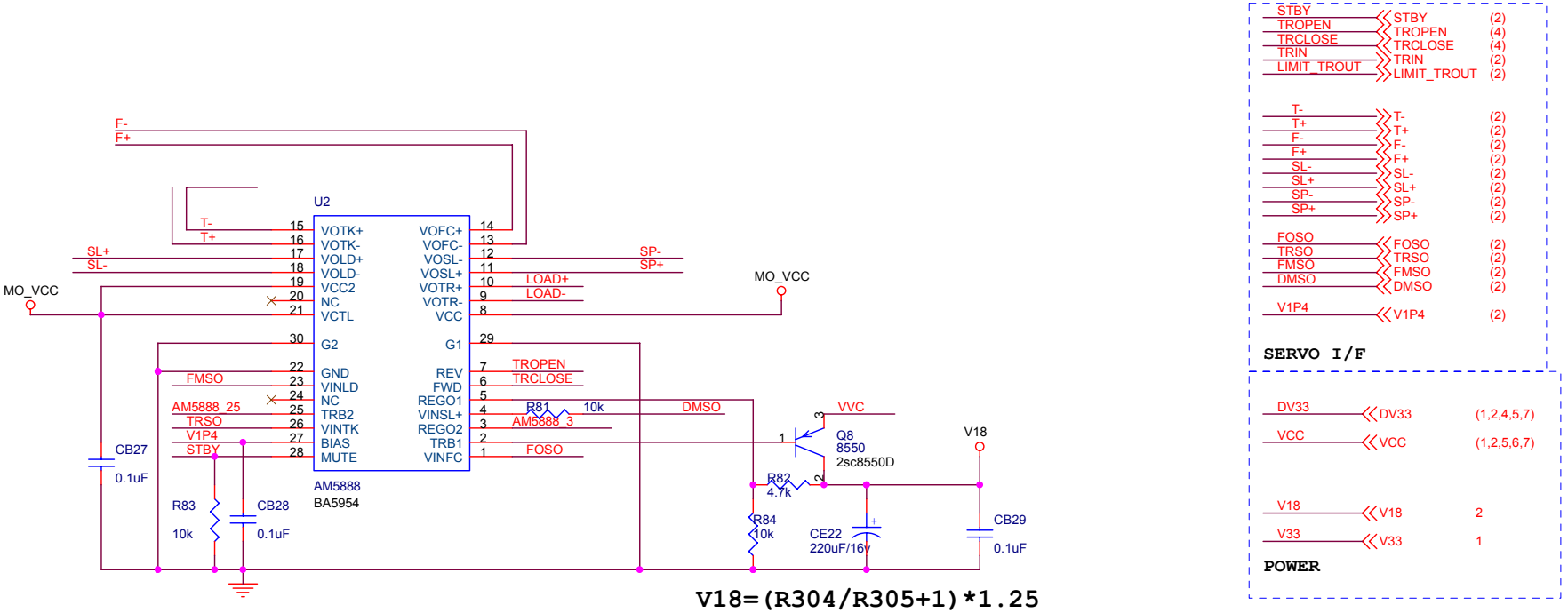
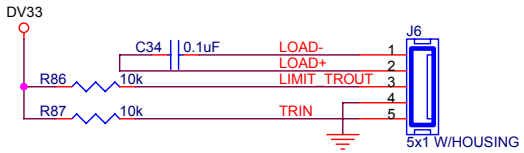
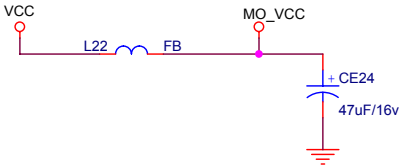
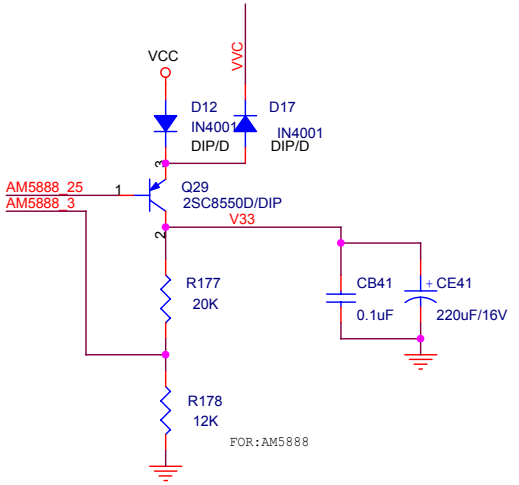
MediaTek (ShenZhen) Inc.
COMMON1389L/K_HD65
MT1389L/K LQFP128
Tuesday, July 31, 2007









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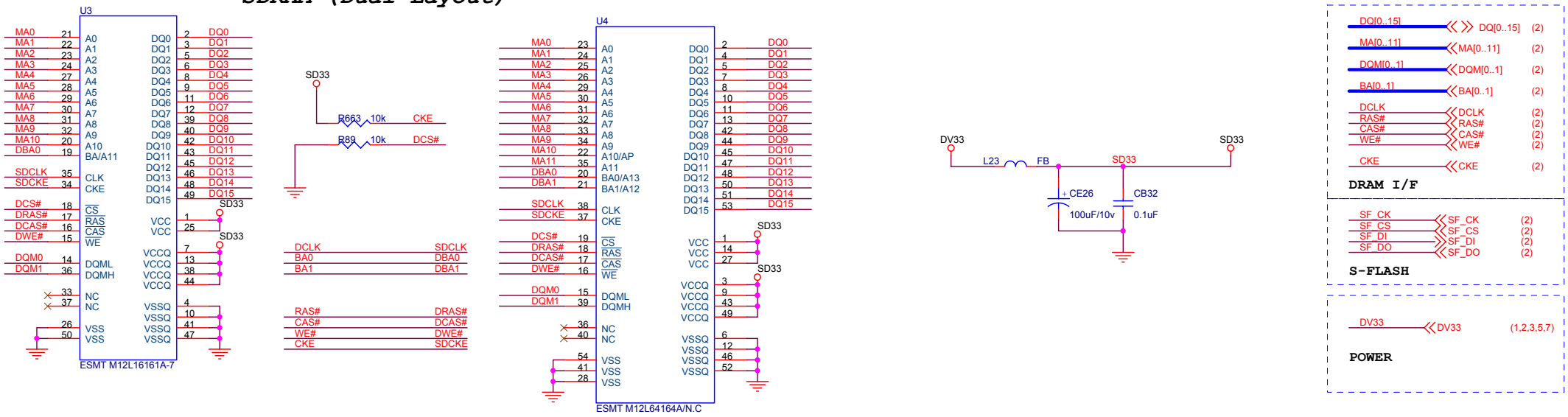

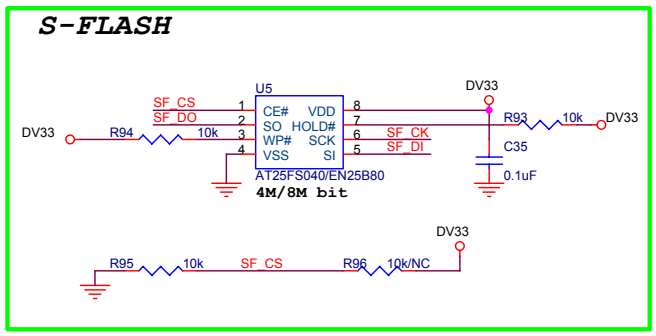

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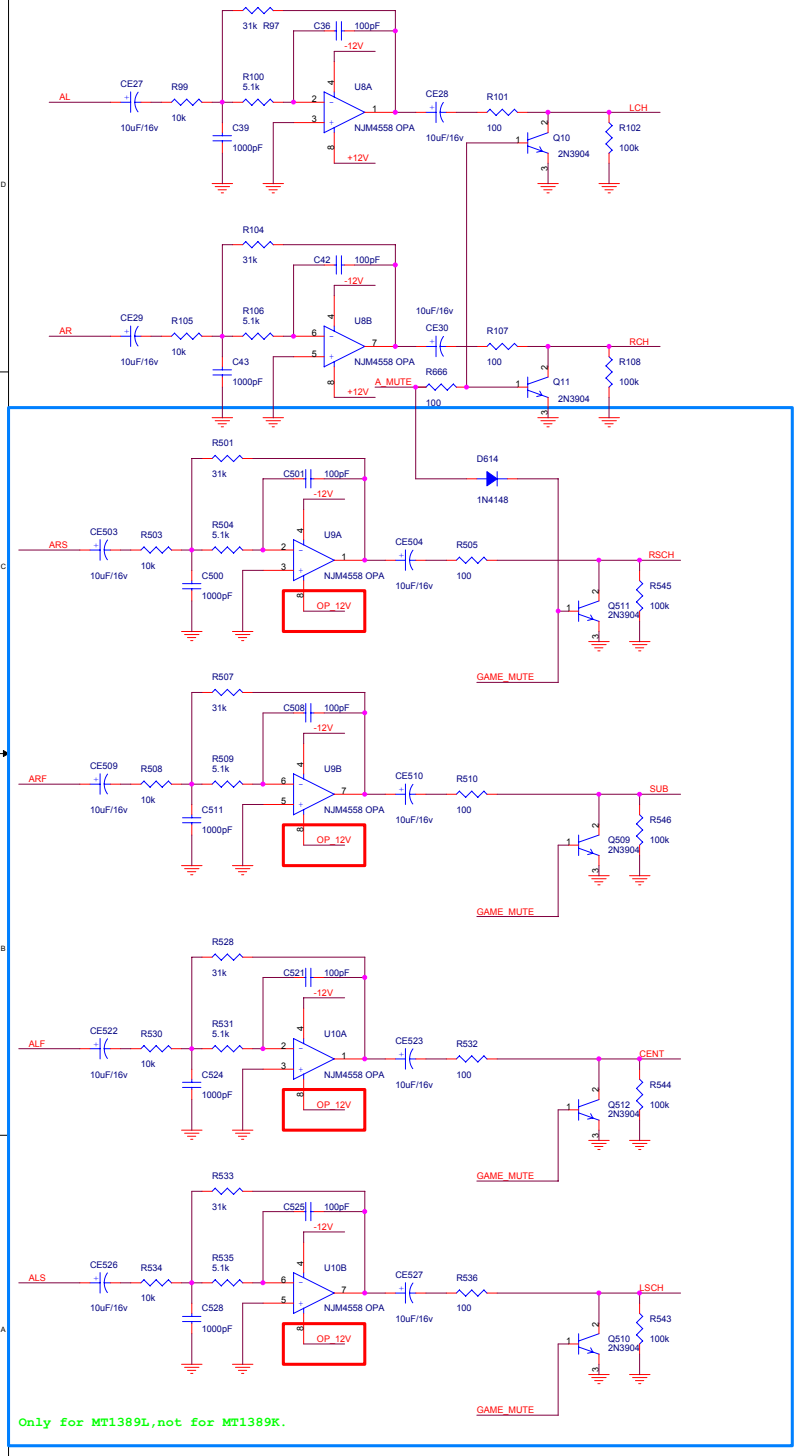
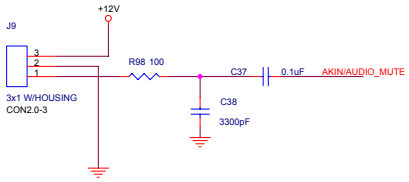
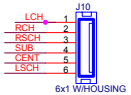


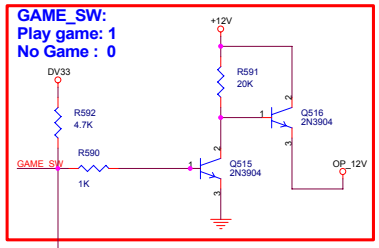
MIC INPUT

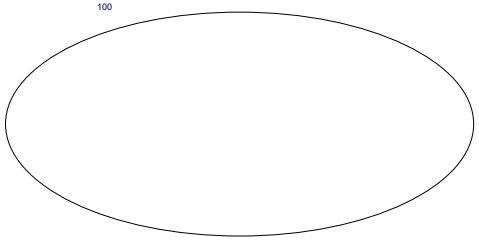


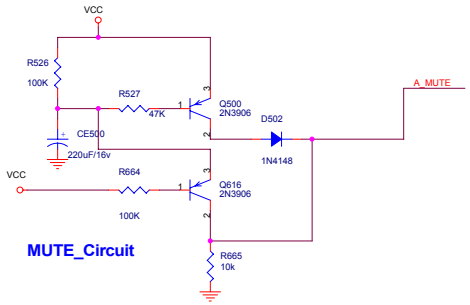
AKIN1 signal:Vp-p<=700mV

Only for MT1389L,not for MT1389K.
R & C closed to MT1389

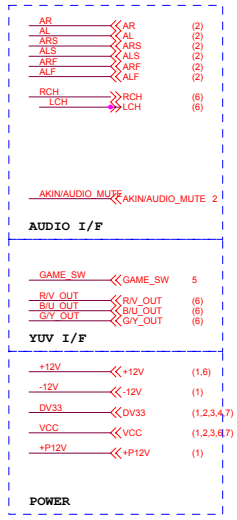








MUTE_Circuit



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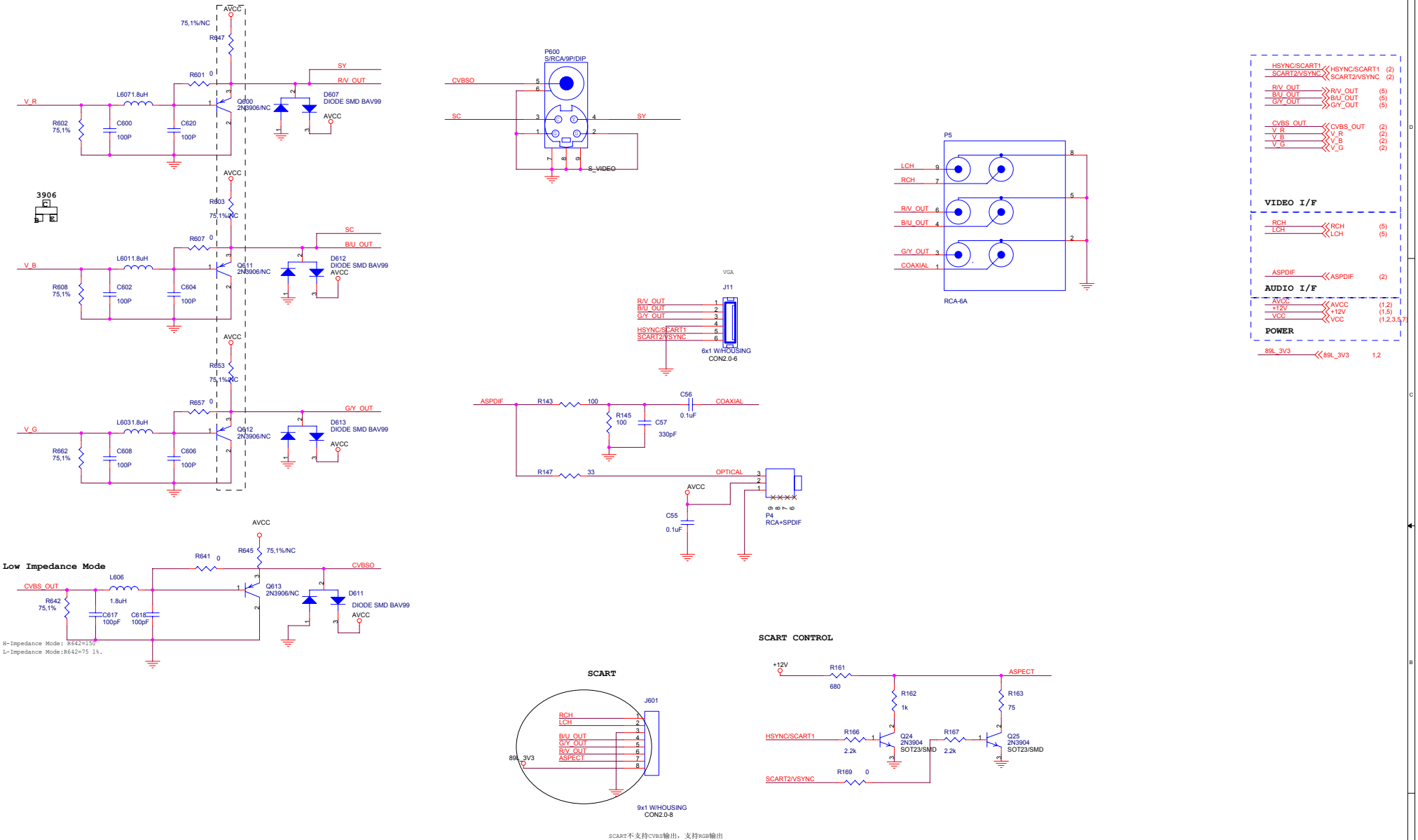

SCART不支持CVBS输出，支持RGB输出

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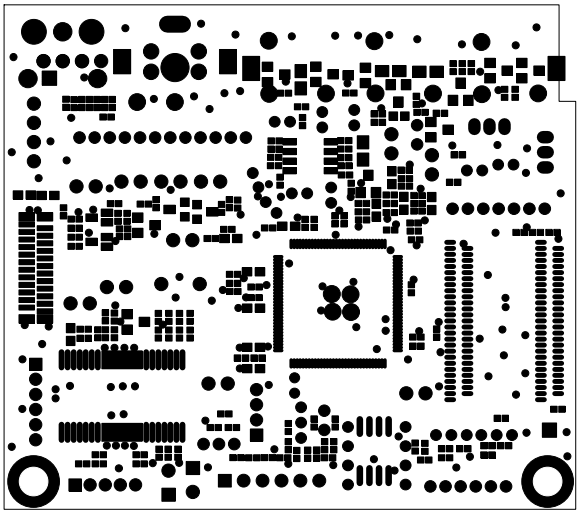
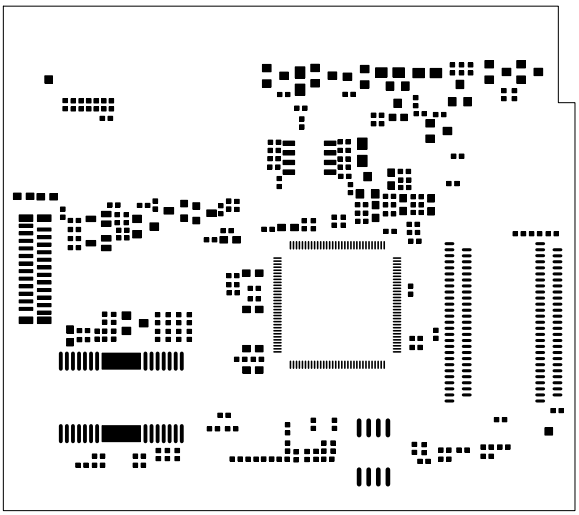
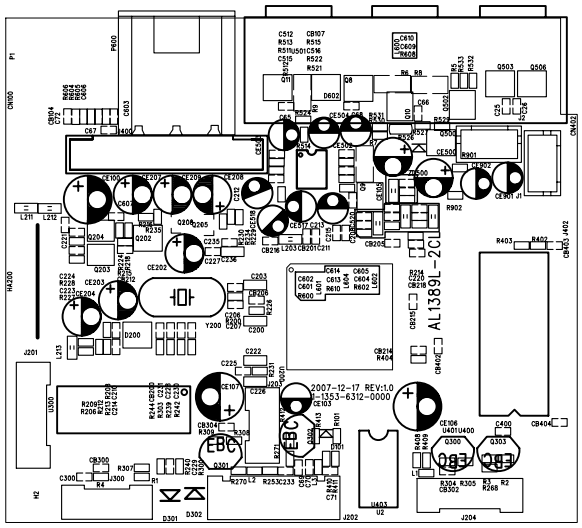
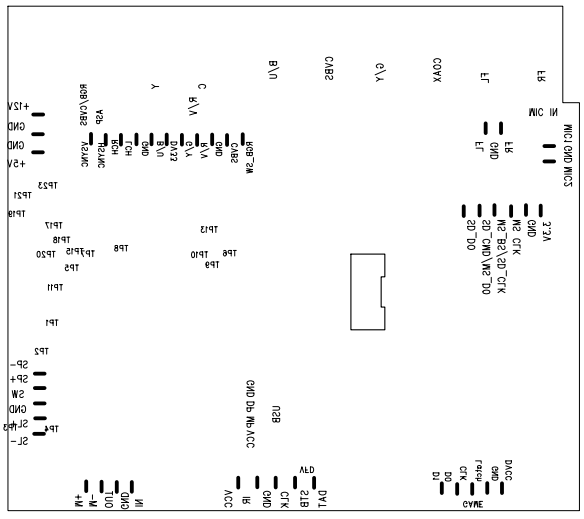


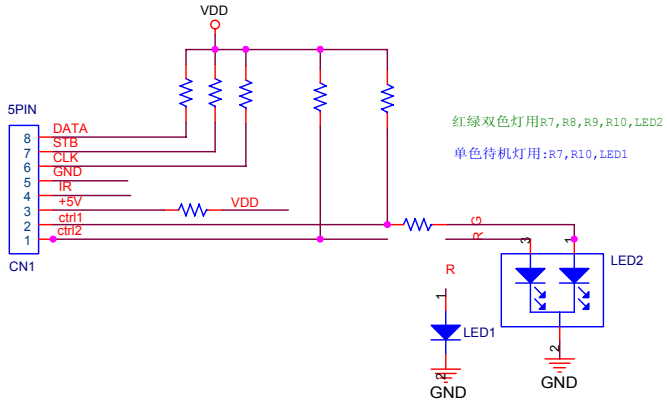


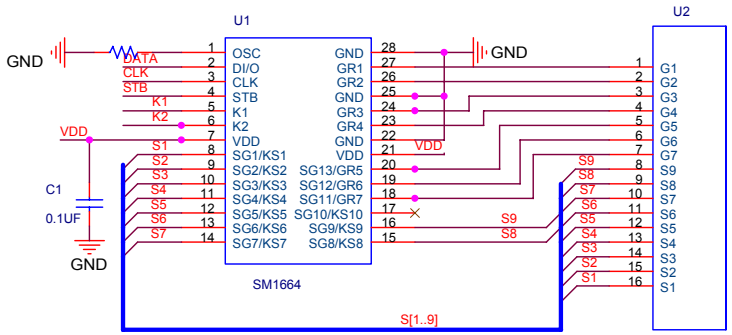
Decode Board top routing

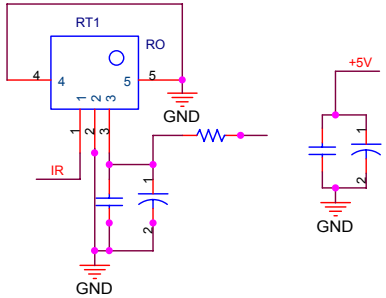


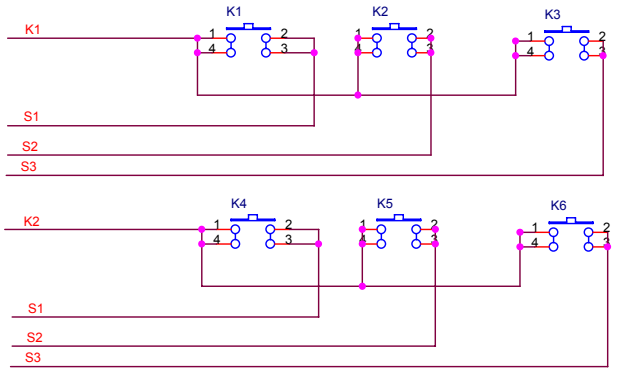


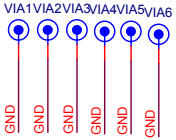
Decode Board silkscreen











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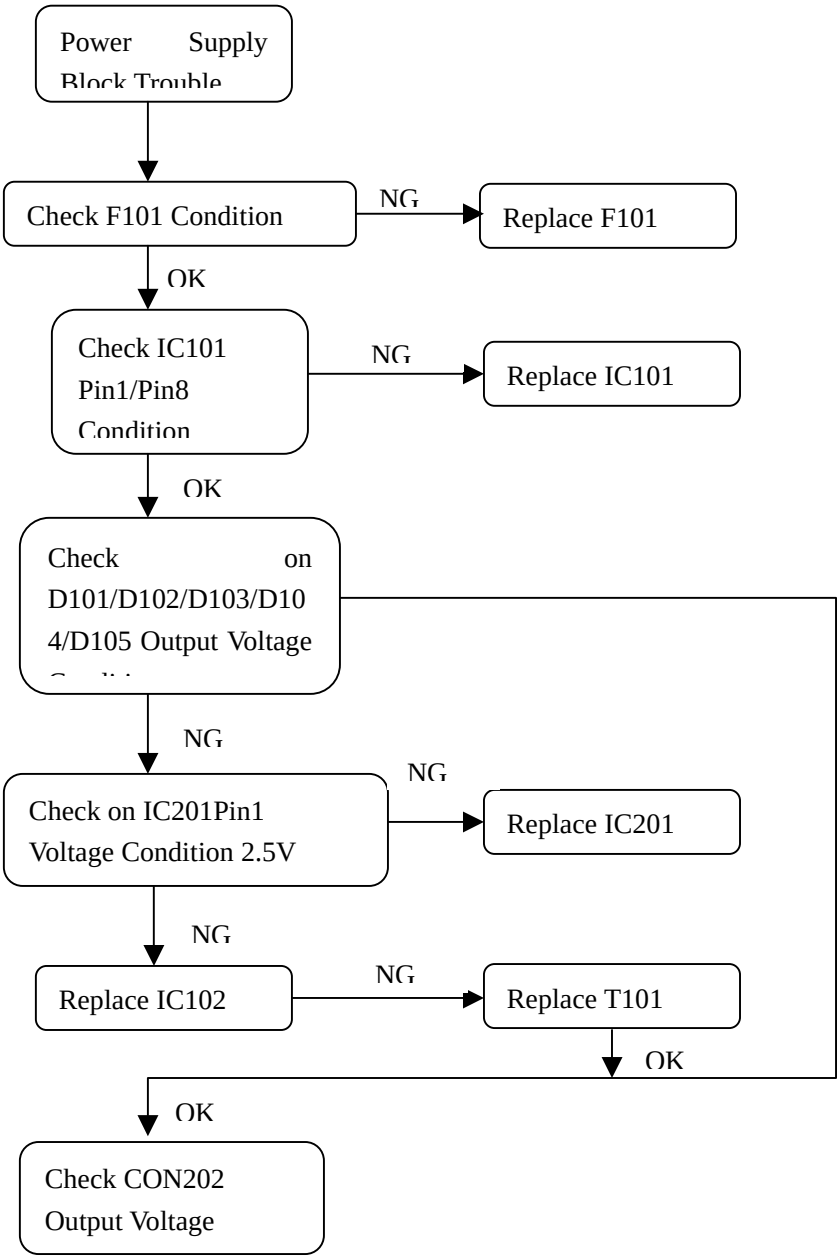
Date: Saturday, April 07, 2007	Sheet 1 of 1	

KB SCH AND PCB

3. Servicing Procedures

3.1. Power Supply Trouble Service Flow Chart



3.2. Read Disc Trouble Service Flow Chart

Read disc problem in a DVD player is a very complicated issue that may involve complex issues. This problem is not only relation to the electronic circuit, but also very much relation to the operation environment.

DVD loading unit is a very complicate part that contains big number of ESD components, which require specific equipment, tools and technique to repair; in general, service technician is not suggested to disassemble the DVD loading unit. It is suggest proving the trouble and replacing the complete DVD loading unit, instead of repairing the DVD loading unit in local workshop.

It is suggested to prove the faulty of a DVD loading unit by replacement by a good DVD loading unit.

Before checking the "NO Disc" Trouble, ensure excluding the following possibilities:

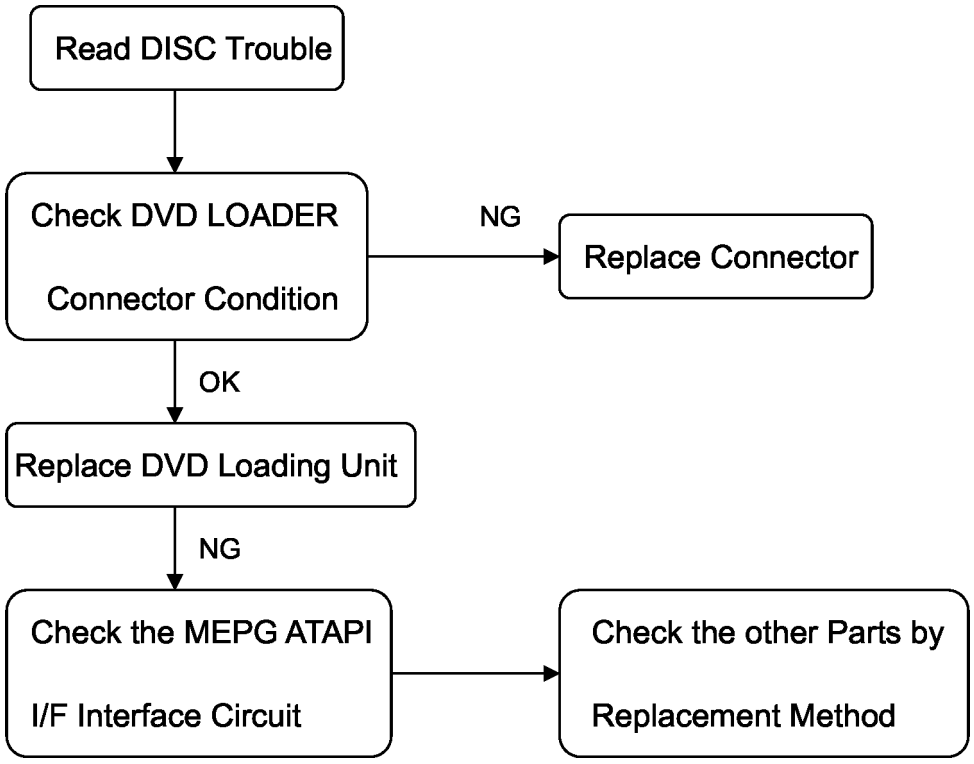
The test disc is damage.

AC power supply voltage dropped below the minimum required level.

DVD disc region code and color system is not matching to the DVD player or system setting.

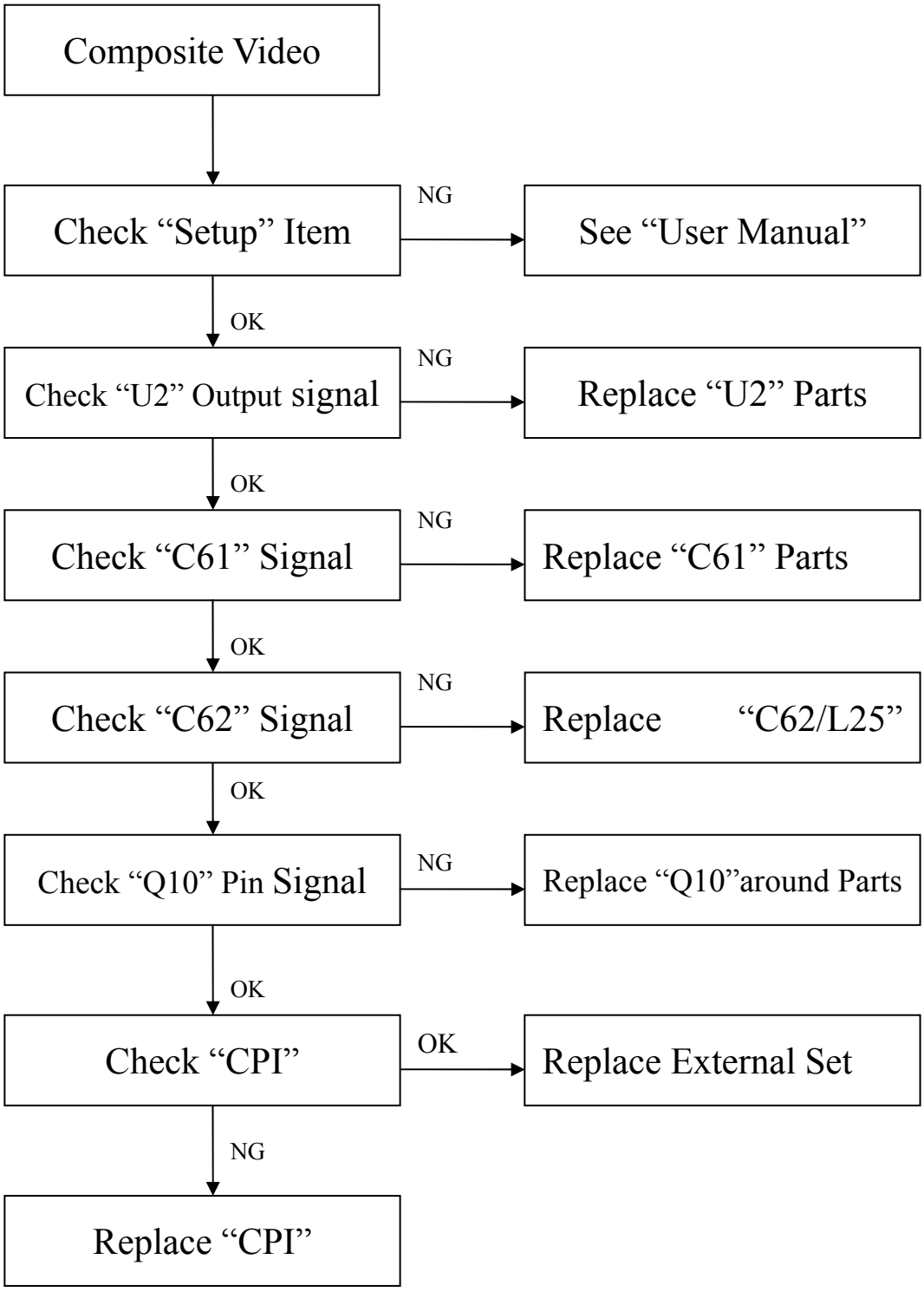
Moisture condensed inside the unit. (Power on the unit, without disc loaded, for 1/2 to 2 hours).

Service Flow Chart

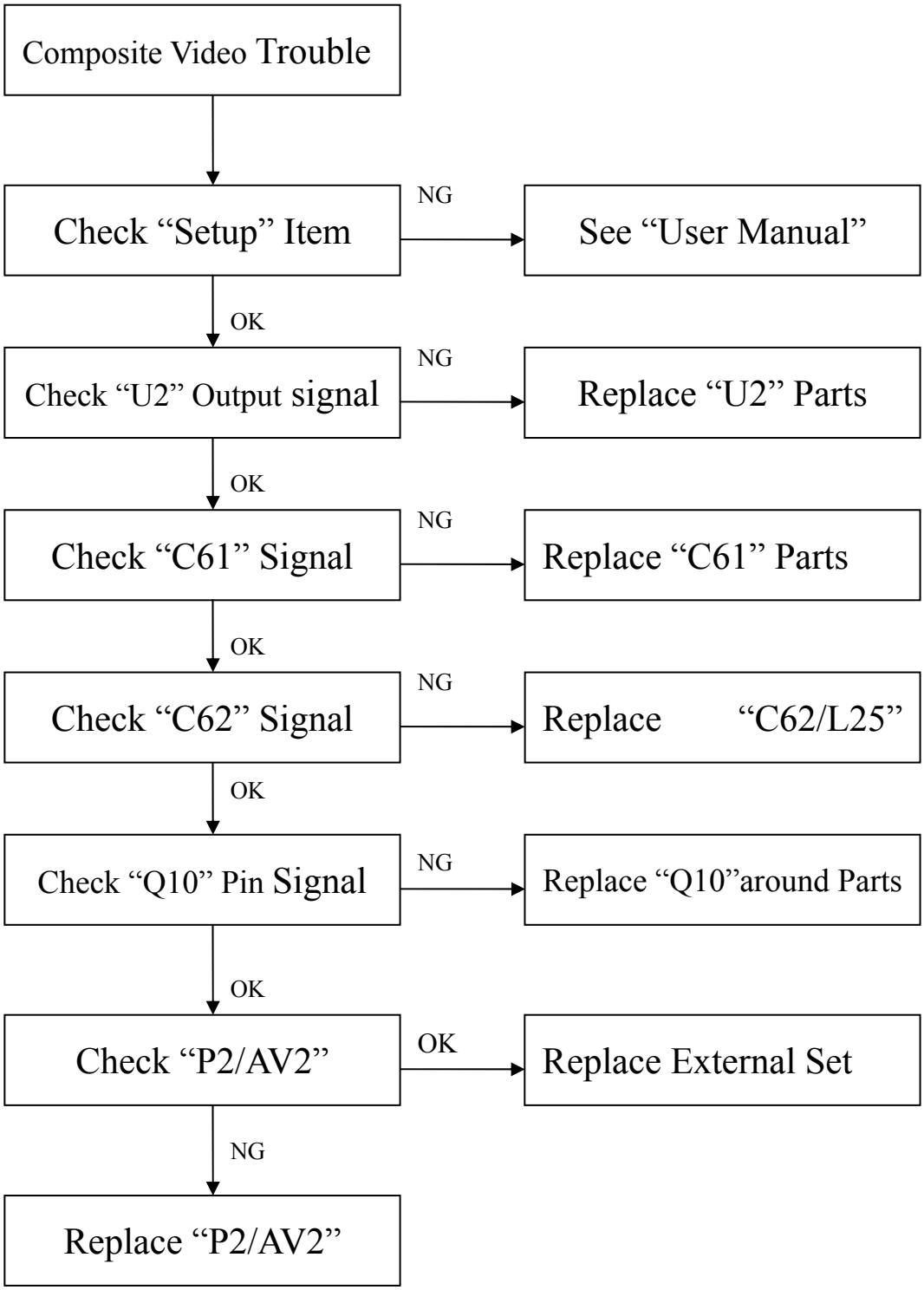


3.3. Video Trouble Service Flow Chart

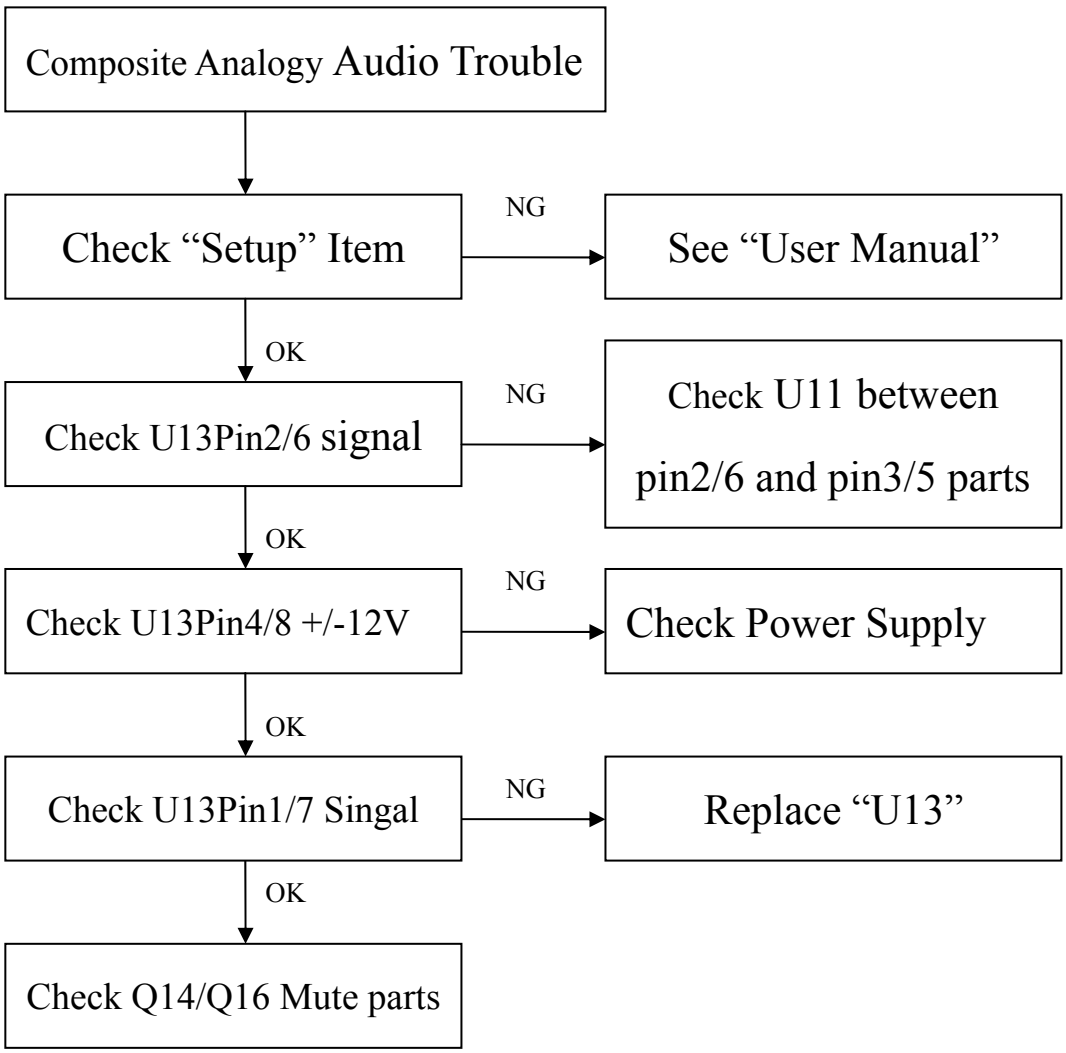
3.3.1. Composite Video Trouble Service Flow Chart



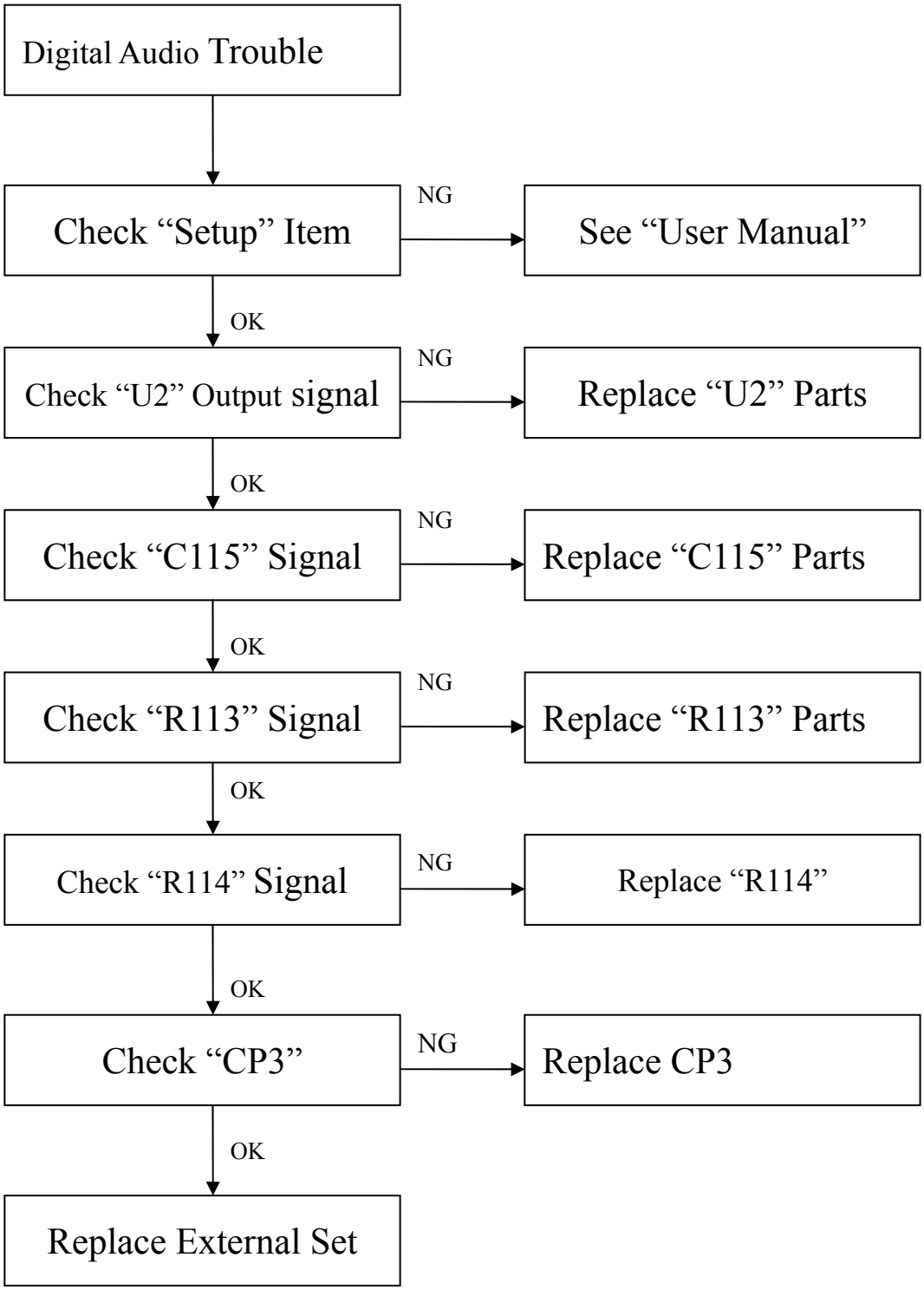
3.3.2. SCART Video Trouble Service Flow Chart



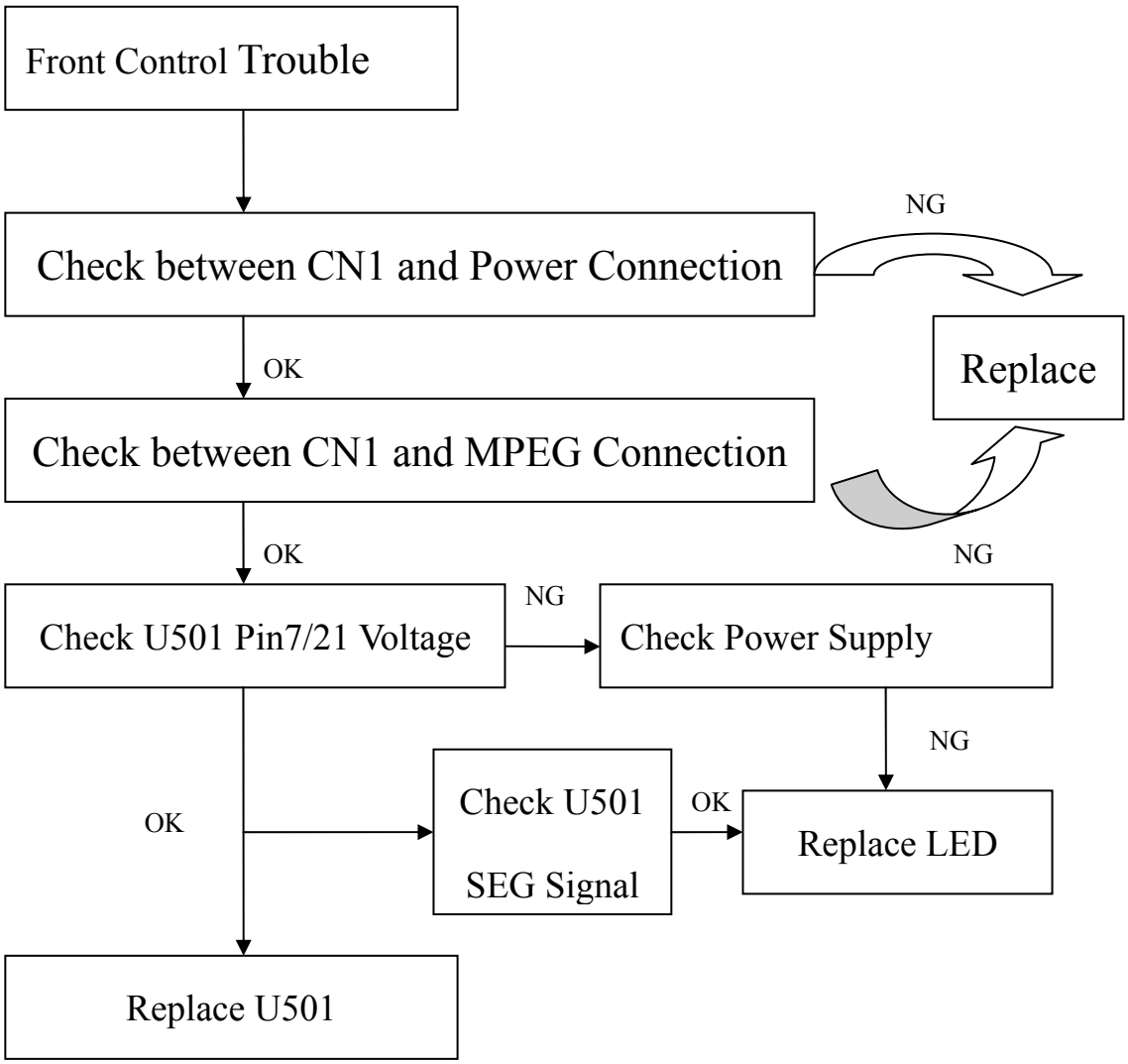
3.4. Composite Analogy Audio Trouble Service Flow Chart



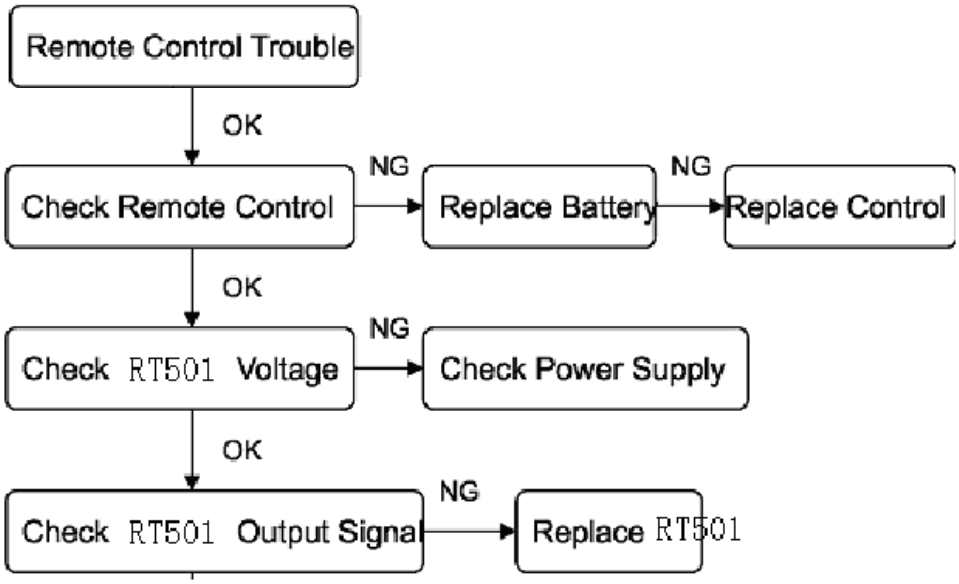
3.5. Digital Audio Trouble Service Flow Chart



3.6. Front Control Trouble Service Flow Chart



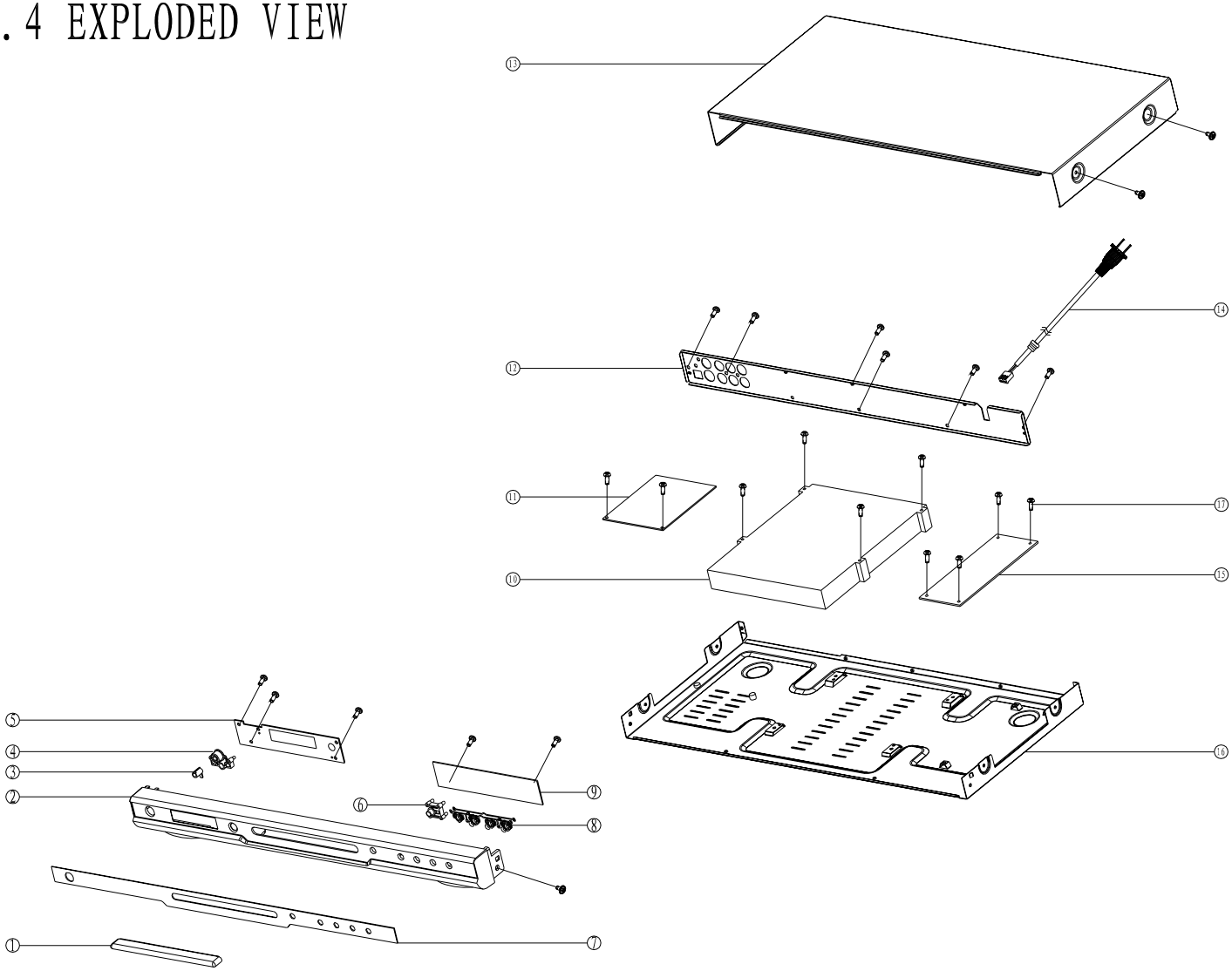
3.7. Remote Control Trouble Service Flow Chart



NO	PART NUMBER	PART NAME	QUANTITY	PLACE
1	1-8600-0229-0001	KB board	1	
2	1-8600-0230-0000	KB board	1	
3	1-8600-1190-0003	KB board	1	
4	1-4018-0006-3200	wire	1	KB board CN4 to KB board CN3....
5	1-4018-0006-1903-R	wire	1	KB board CN1到 MPEG board
6	1-4011-1807-0000	wire	1	KB board to ground..
7	1-4018-0002-1100	wire	1	power board CN201 to KB board CN5....
8	1-4018-0707-0901	wire	1	KB board CN7 TO CN6
9	1-4018-0002-2200-R	wire	1	KB board CN2到 MPEG
10	1-4018-0704-3801-R	wire	1	power board
11	1-1240-2103-0005	loader	1	
12	1-4017-2424-2401-R	flat wire	1	MPEG to loader
13	1-4018-0911-1801-R	wire	1	MPEG to loader
14	1-4011-1806-0000-R	wire	1	MIC board to ground
15	1-4019-0606-5201-R	wire	1	MIC board to MPEG Board and power board
16	1-4018-0404-1201-R	wire	1	USB board to MPEG board
17	1-8600-5084-0010	power board	1	
18	1-8600-3079-0003	MIC board	1	
19	1-8600-6312-0004	MPEG Board	1	
20	1-8600-0339-0002	USB board	1	
21	1-2010-N839-0013	top cover	1	
22	1-2020-A343-0000	rear panel	1	inside
23	1-2091-0011-0000	plastic pole	4	
24	1-2220-0020-0000	insulative slice	1	
25	1-3070-0004-0003	plastic bag	1	
26	1-3020-0001-0000	QC PASS	1	power board
27	1-2161-0085-0000	sponge	4	loader feet
28	1-2060-A343-0000	mirror	1	
29	1-2040-A343-0000	door	1	front panel
30	1-2050-N839-0001	power button	1	front panel
31	1-2062-N839-0000	function button	1	front panel

32	1-3000-A121-0003	remote control	1	
33	1-2161-0033-0000	sponge	2	
34	1-2220-N839-0000	insulative slice	1	
35	1-2000-N839-0015	bottom chassis	1	
36	1-2130-3005-0B00	screw	1	
37	1-2134-3006-0B10	screw	16	
38	1-2130-3008-0B10	screw	6	
39	1-2131-3006-0B00	screw	4	
40	1-2134-3007-0A00	screw	2	
41	1-2134-3015-0B00	screw	4	
42	1-2130-3006-0B01	screw	1	
43	1-3030-A343-0000	cartoon box	0.2	
44	1-3040-A343-0000	giftbox	1	
45	1-3090-A343-0000	user manual	1	
46	1-2030-N839-0005	front panel	1	
47	1-3020-A343-0001	serial number	3	
48	1-3050-N839-0000	polyfoam	1	
49	1-3050-N839-0001	polyfoam	1	
50	1-3050-N839-0002	polyfoam	1	
51	1-2160-0074-0001	cushion	2	
52	1-2134-3008-0A00	screw	2	
53	1-3070-A011-0002	plastic bag	1	giftbox
54	1-4012-0007-0005	AV cable	1	
55	1-4016-3000-0G00	power cable	1	
56	1-2051-N802-0006	MIC button	1	by side
57	1-2051-N802-0007	MIC button	1	by side
58	1-3020-A343-0000	serial number	1	warranty card
59	1-2124-0009-0000	screw	2	MIC
60	1-2161-0083-0001	sponge	1	inside
61	1-3110-A342-0000	warranty card	1	
62	1-2131-2005-0B00	screw	4	

4.4 EXPLODED VIEW



17		SCREW		32	
16		BOTTOM COVER		1	
15		POWER BOARD		1	
14		POWER LINE		1	
13		TOP COVER		1	
12		REAR PANEL		1	
11		MPEG BOARD		1	
10		LOADER		1	
9		KB BOARD		1	
8		FUNCTION BUTTON		1	
7		LENSES		1	
6		OPEN/CLOSE BUTTON		1	
5		DISPLAY PANEL		1	
4		POWER BUTTON		1	
3		LIGHT POLE		1	
2		PANEL		1	
1		CD DOOR		1	

EXPLODED